

AMENDMENTS

In the Claims:

1. (Currently amended): A method for isolating hemoglobin from a starting solution containing red blood cells, the method comprising the steps of:
 - (a) separating the red blood cells from the starting solution;
 - (b) washing the red blood cells in wash solution;
 - (c) contacting the red blood cells with a hypotonic solution to produce stromata and a hemolysate containing hemoglobin having an ionic strength, wherein step (c) further comprises measuring the ionic strength of the hemolysate; and
 - (d) separating the hemolysate from the stromata;wherein steps (c) and (d) are simultaneously or sequentially repeated until the ionic strength of the hemolysate is below a predetermined level.
2. (Previously presented): The method of claim 1, wherein the wash solution further comprises a normal saline solution.
3. (Previously presented): The method of claim 1, wherein the wash solution further comprises an agent for killing bacteria.
4. (Previously presented): The method of claim 1, wherein the wash solution further comprises an agent to remove or inactivate organisms.
5. (Previously presented): The method of claim 1, wherein steps (a) through (d) are performed within a single processing container.
6. (Canceled)
7. (Previously presented): A method performed within a cell processing apparatus for isolating hemoglobin from a solution containing red blood cells and plasma, the method comprising the steps of:
 - (a) collecting the solution in a sterile processing set comprising a processing bag and a tube harness, wherein the processing bag is disposed within a centrifuge in the cell processing apparatus;

- (b) separating the red blood cells from the plasma by rotating the processing bag within the centrifuge;
- (c) expressing the plasma from the processing bag;
- (d) introducing a washing solution into the processing bag to wash the red blood cells;
- (e) expressing the supernatant after washing;
- (f) lysing the red blood cells to produce stromata and a hemolysate containing hemoglobin having an ionic strength, wherein said lysing step further comprises exposing the red blood cells to a hypotonic solution;
- (g) separating the hemolysate from the stromata by rotating the processing bag in the centrifuge; and
- (h) removing the hemolysate through a sterile port in the processing bag.

8. (Previously presented): The method of claim 7, wherein the steps of separating the hemolysate from the stromata further comprises the steps of:
removing the hemolysate produced when the hypotonic solution initially contacts the red blood cells; and
continually removing additional hemolysate produced as the ionic strength of the hemolysate decreases.

9. (Previously presented): The method of claim 8, further comprising the steps of:
measuring the ionic strength of the hemolysate;
adding additional hypotonic solution; and
simultaneously carrying out or repeating the steps of adding additional hypotonic solution and removing hemolysate until the ionic strength is below a predetermined level.

10. (Previously presented): A method for isolating hemoglobin from a solution containing red blood cells within a processing container in a cell processing apparatus, the method comprising the steps of:

- (a) washing the red blood cells in the processing container with a saline solution;

(b) lysing the red blood cells in the processing container to produce stromata and a hemolysate containing hemoglobin having an ionic strength, wherein said lysing step further comprises measuring the ionic strength of the hemolysate formed by exposing the red blood cells to a hypotonic solution;

(c) separating the hemolysate from the stromata and red blood cells within the processing container; and

(d) extracting the hemolysate from the processing container;

wherein the steps of lysing and separating are simultaneously carried out or sequentially repeated until the ionic strength of the hemolysate is below a predetermined level.

11. (Previously presented): The method of claim 10, wherein the step of separating further comprises centrifuging the processing container within the apparatus to pack the stromata and red blood cells.

12. (Previously presented): The method of claim 10, wherein the step of washing further comprises adding a detergent, antibacterial or antiviral agent to the saline solution.

13.-15. (Canceled)

16. (Previously presented): The method of claim 19, wherein the reagent comprises activated polyethylene glycol.

17. (Previously presented): The method of claim 19 further comprising the step of filtering the chemically modified hemoglobin solution.

18. (Previously presented): The method of claim 19, further comprising the step of sterilizing the chemically modified hemoglobin solution.

19. (Currently amended): A method for preparing a chemically modified hemoglobin solution from a starting solution containing red blood cells, the method comprising the steps of:

(a) separating the red blood cells from the starting solution;

(b) washing the red blood cells in wash solution;

(c) contacting the red blood cells with a hypotonic solution to produce stromata and a hemolysate containing hemoglobin having an ionic strength, wherein step (c) further comprises measuring the ionic strength of the hemolysate;

(d) separating the hemolysate from the stromata; and

(e) mixing the hemolysate with a reagent adapted to chemically modify the hemoglobin to form a chemically modified hemoglobin solution;

wherein steps (c) and (d) are simultaneously or sequentially repeated until the ionic strength of the hemolysate is below a predetermined level.